

1 circuit are connected directly to pins 42, Fig. 4. Printed circuit board 17 also includes
compliant circuits 43 which are used to tailor the circuit to the particular standards of the
country or region in which it is to be used. Fig. 5 shows one specific implementation of
the line side circuit 22 and its associated circuitry including but not limited to the
5 isolation circuit 24, compliant circuit 43, diode bridge 50, and protection circuit 54.
Protection circuit 54 includes both UL 1950 fuse 60 and lightning suppression circuitry
62. The device side circuit 20 is shown in greater detail in Fig. 6.

Although specific features of the invention are shown in some drawings and not in
others, this is for convenience only as each feature may be combined with any or all of
10 the other features in accordance with the invention. The words "including",
"comprising", "having", and "with" as used herein are to be interpreted broadly and
comprehensively and are not limited to any physical interconnection. Moreover, any
embodiments disclosed in the subject application are not to be taken as the only possible
embodiments.

15 Other embodiments will occur to those skilled in the art and are within the
following claims:

What is claimed is:

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Applicant: Loeb *et al.*
For: JACK MODULE WITH INTEGRATED MODEM INTERFACE
CIRCUITS

1 1. A jack module with integrated modem interface circuits comprising: a jack
2 housing for receiving a plug; a plurality of contacts in said housing for engaging contacts
3 on a plug; a plurality of terminals in said housing interconnecting with a mounting
4 member; and a line side circuit in said jack housing interconnecting with said contacts.

1 2. The jack module of claim 1 in which said jack housing receives a public
2 services telephone network plug.

1 3. The jack module of claim 1 in which said jack housing receives an RJ11
2 plug.

1 4. The jack module of claim 1 in which said terminals include pins.

1 5. The jack module of claim 4 in which said terminals include solder pins.

1 6. The jack module of claim 1 further including an isolation circuit in said
2 housing between said line side circuit and said terminals for isolating said line side circuit
3 from a system side circuit.

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1 7. The jack module of claim 6 in which said system side circuit is on said
2 mounting member.

1 8. The jack module of claim 1 in which said mounting member includes a
2 motherboard.

1 9. The jack module of claim 1 in which said mounting member includes an
2 add-in card.

1 10. The jack module of claim 1 in which said jack housing includes an
2 electrical protection circuit.

1 11. The jack module of claim 10 in which said electrical protection circuit
2 includes a fuse.

1 12. The jack module of claim 11 in which said fuse includes a UL1950 fuse.

1 13. The jack module of claim 1 in which said jack housing further includes
2 line reversal diode bridge.

1 14. The jack module of claim 1 in which said jack housing further includes
2 compliance circuits.

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1 15. The jack module of claim 6 in which said isolation circuit includes at least
2 one capacitor.

1 16. The jack module of claim 6 in which said isolation circuit includes a
2 transformer.

1 17. The jack module of claim 10 in which said protection circuit includes a
2 lightning suppression circuit.

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